

REMARKS

Reconsideration is respectfully requested of all claims under prosecution. Claims 1, 3, 15-18, 20-21, & 26 are presented herein. Claim 1, the sole independent claim, has been amended to better clarify the invention. Applicant thanks the Office for the correction of the prior mis-numbered claims. The claims have been amended as follows:

First, the structure of the warp and weft “systems” in the fabric has been better clarified by replacement of the concept of “systems” with the preferred embodiment of “yarns”. The basis for this amendment is found on page 6 lines 1-19; and specifically the provision for the use of “at least two different warp yarns and at least two different weft yarns” is disclosed in Example 2 (pages 13-15). Further, the word “assembled” has been replaced with the preferred embodiment of “woven”; basis for this amendment is found on page 6, lines 20-22.

Second, the type of pockets has been better clarified by the addition of the words “closed, adjacent, and square shaped” prior to the word “pockets”. Basis for this amendment is found on page 8, lines 11-14.

Third, the concepts of “sides” and “plies”, and the use of materials having different dimensional shrinkage have been better clarified by replacement of the phrase “having a side (S1) and a side (S2)” with the phrase “formed from two single plies, each ply having a different dimensional thermal shrinkage”. Basis for this amendment is found on page 8, lines 11-14, and page 6, line 31 to page 7, line 3. The now-redundant phrase “wherein each warp and weft systems is made of a material having a different dimensional thermal shrinkage” has been removed from the claim.

Finally, the structure of the fabric has been better clarified with addition of the preferred embodiment that the warp and weft yarns are woven together “by alternating them so as to obtain a chess design” and that the same side of two adjacent pockets is made of two different “single plies”. Basis for this amendment is found on page 7, lines 20 to 28.

Claims 3 & 26 have been amended to correct the dependency from Claim 1. Claims 2, 4, & 25 are cancelled as being redundant. Claims 5-14 & 19 were previously cancelled. No new matter is present in the above claim requirements.

Rejection Under 35 U.S.C. §112, First Paragraph

Claims 1, 3, 15-18, 20-21, and 26 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with an enabling requirement. All claims have been amended to better clarify the preferred invention and it is believed all of the present rejections are made moot.

Office states on page 3 that it is unclear how individual yarns of the different plies are woven together and what weave pattern is used. With the present amendments, the invention requires at least two different warp yarns and at least two different weft yarns, and these yarns are woven together so as to achieve two effects in the fabric. The first effect is to create closed, adjacent, and square shaped pockets. The second effect is to weave the yarns so as to obtain a chess design such that the same side of two adjacent pockets is made of two different single plies. Such a design is shown in Figure 2 of the specification. As disclosed on page 7, lines 20-28:

“...the fabric of the present invention is preferably made of two separate single plies (2, 3) each made of a material having a different dimensional thermal shrinkage, the two separate single plies being woven together in such a way that they cross each other at the predefined positions so that the same side (Figs 2 and 4a, S1 or S2) of two adjacent pockets is alternately made of the two different separate single plies (2, 3) according to a chess design.”

Therefore, as presently amended, the fabric is woven in a chess design, with the first warp and first weft yarns woven together to form one side of the pocket (or ply) and the second warp and weft yarns woven together to form the other side of the pocket (or ply).

The chess design of squares can be accomplished by double weaving a number of first weft yarns that are adjacent to each other, and which are woven with a number of first warp yarns, to form the first or top ply of a pocket. At the same time, a similar number of second weft yarns adjacent to each other are woven with a number of second warp yarns forming the opposing or bottom ply of the pocket. The number of first and second weft yarns laid adjacent to each other controls the length of the ply and therefore the length of the pocket. Across the warp of the fabric, a set of first warp yarns is alternated with a set of second warp yarns in both the top and bottom ply. The number of first and second warp yarns that are

adjacent to each other controls the width of the pocket. As the fabric is woven, adjacent pockets on the same side of the fabric having different plies are formed by shifting the warp yarns from one ply side to the other while still be woven with their respective weft yarns.

On page 3 the Office states it is unclear how many yarn systems are being claimed. The present amendments eliminate the wording related to systems, and instead use at least two warp yarns and at least two weft yarns. This assures one set of weft/warp yarns can be woven together to achieve a ply that is different from the other set of weft/warp yarns and that the chess design can be clearly achieved.

On page 3 the Office also states that the applicant has argued that applicant's invention does not use plies, and it is unclear how the applicant is defining the term plies. Applicant regrets any confusion or errors with previous comments concerning this issue. As used in the specification, the word "plies" refers to the two areas in the fabric that form the pockets in the fabric. As shown in the figures, there are multiple pockets with sides S1 and S2. So *each pocket* can be thought of as having an upper ply and a lower ply adjacent to each other, but the fabric itself does not have a contiguous upper ply and a contiguous lower ply.

Rejection Under 35 U.S.C. §112, Second Paragraph

Claims 1, 3, 15-18, 20-21, and 26 stand rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim subject matter. All claims have been amended to better clarify the preferred invention as discussed previously herein and it is believed all of these present rejections are made moot.

Rejection Under 35 U.S.C. §103(a)

Claims 1, 3, 15-18, 20-21, and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over WO 03/039280 (English Translation) in view of Faircloth. It is respectfully submitted that this combination of references does not provide for the presently claimed invention.

The Office states in paragraph 11 (page 5) that “it would have been obvious to use the weave design taught by Faircloth in the fabric of WO 03/039280 to produce a woven fabric where the layers are interwoven to create adjacent pocket regions of different materials”.

Further the Office states:

“The patterns taught by Faircloth include multiple sets of yarns, including at least two warp systems, one in the lower ply and one in the upper ply, two weft systems, one in the lower ply and one in the upper ply, and at least a **third weft system** made from a shrinkable **yarn that traverses between the upper and lower plies** to produce alternating pockets.”

(Emphasis added)

Faircloth, then teaches a weave design wherein two fabric layers are bound by a tie yarn present in the weft to weave the two layers. The main claim has now been amended to state the at least two different warp yarns and the at least two different weft yarns are woven together by alternating them so as to obtain a chess design such that a same side of two adjacent pockets is made of two different single plies. This can only occur by having both sets of weft and warp yarns traverse from one side of the fabric to the other.

The “ply” of Faircloth is in fact an outer contiguous layer, while the “ply” in the present invention is the side of a pocket. As pointed out by the Office, Faircloth has an upper ply and a lower ply. The present invention has a chess design so that adjacent pockets have different outer sides (or plies). In other words the upper and lower plies swap from pocket to pocket in a chess design. Therefore any adjacent pockets made using the weave of Faircloth would have the same outer sides.

Therefore, since Faircloth does not provide for the presently claimed structure, the combination Faircloth and WO 03/39280 does not provide for the presently claimed invention as represented by Claims 1, 3, 15-18, 20-21, and 26.

In the Response to Arguments, the Office states that WO 03/39280 is combined with Faircloth to provide a teaching to produce an interwoven fabric with different pocket regions. This assertion is respectively traversed. All of the pocket regions in Faircloth are the same because the sides of the fabric are the same throughout. The pocket regions of Faircloth are

the puckered regions. The Office states that Faircloth discloses puckered regions and non-puckered regions, but the non-puckered regions are tie-points and are therefore not pockets.

The Office also states in paragraph 12 (page 6) that the combination of references includes “the alternating pockets are made from different combinations of materials”. This assertion is respectively traversed. Both references teach the material of one side can be different from the other side, but in all cases one side of the fabric always has the same material. Neither reference teaches alternating pocket materials on the same side of adjacent pockets.

Claims 1, 3, 15-18, 20-21, and 26 have now been amended to clarify that the fabric is woven in a chess design such that a same side of two adjacent pockets is made of two different single plies. It is respectfully submitted that the combination of these references does not provide that structure. Further, there is no teaching or suggestion of that structure in these references.

In view of the foregoing, allowance of the above-referenced application is respectfully requested.

Respectfully submitted,
/Andrew G. Golian/
Registration 25,293
for
H JACKSON KNIGHT
ATTORNEY/AGENT FOR APPLICANTS
Registration No.: 38,518
Telephone: (804) 383-2209
Facsimile: (302) 355-3982

Dated: March1, 2010